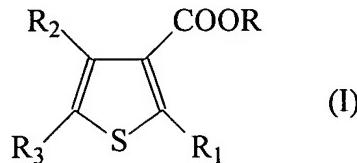


AMENDMENTS TO THE CLAIMS

1. (currently amended) A solid catalyst component for the polymerization of olefins comprising Mg, Ti, halogen and an electron donor selected from thiophene derivatives of formula (I):

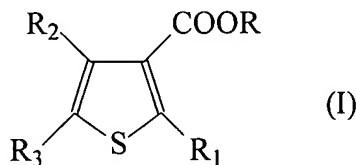


wherein R is a branched alkyl group, R₁, R₂ and R₃, same or different, are hydrogen, halogen, R⁴, OR⁴, COOR⁴, SR⁴, NR⁴₂ ~~and/or~~ PR⁴₂, wherein R⁴ is a linear or branched C₁-C₂₀ alkyl, C₂-C₂₀ alkenyl, C₃-C₂₀ cycloalkyl, C₆-C₂₀ aryl, C₇-C₂₀ alkylaryl or C₇-C₂₀ arylalkyl group, optionally containing ~~one or more heteroatoms~~at least one heteroatom, and ~~two or more~~at least two of said R₁-R₃ groups can also be joined to form a cycle, with the ~~provisions~~proviso that at least one of R₁ and R₂ is COOR⁴ and that when R₂ is COO-i-octyl and R is i-octyl, at least one of R₁ and/or R₃ are different from hydrogen.

2. (currently amended) The catalyst component according to claim 1 in which in the thiophene derivatives of formula (I), R is a primary branched alkyl having from 4 to 15 carbon atoms.
3. (currently amended) The catalyst component according to claim 1 in which in the thiophene derivatives of formula (I), R₂ is a COOR group.
4. (currently amended) The catalyst ~~components~~component according to claim 3 in which at least one of R₁ and/or R₃ is a C₁-C₂₀ alkyl group.
5. (currently amended) The catalyst component according to claim 1 in which in the thiophene derivatives of formula (I), R₁ is a COOR group.

6. (currently amended) The catalyst ~~components~~component according to claim 5 in which one of R₂ and R₃ of formula (I) are different from hydrogen.
7. (original) The catalyst component of claim 1 comprising a titanium compound having at least a Ti-halogen bond and the thiophene derivatives of formula (I) supported on a Mg halide in active form.
8. (currently amended) A catalyst for the polymerization of olefins comprising the product of the reaction between:

1.- a solid catalyst component according to any of the claims 1-7 comprising Mg, Ti, halogen and an electron donor selected from thiophene derivatives of formula (I):



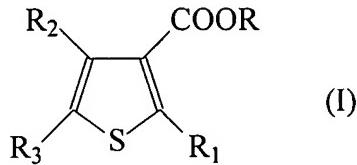
wherein R is a branched alkyl group, R₁, R₂ and R₃, same or different, are hydrogen, halogen, R⁴, OR⁴, COOR⁴, SR⁴, NR⁴₂ or PR⁴₂, wherein R⁴ is a linear or branched C₁-C₂₀ alkyl, C₂-C₂₀ alkenyl, C₃-C₂₀ cycloalkyl, C₆-C₂₀ aryl, C₇-C₂₀ alkylaryl or C₇-C₂₀ arylalkyl group, optionally containing at least one heteroatom, and at least two of said R₁-R₃ groups can also be joined to form a cycle, with the proviso that at least one of R₁ and R₂ is COOR⁴ and that when R₂ is COO-i-octyl and R is i-octyl, at least one of R₁ and R₃ are different from hydrogen;

- an alkylaluminum compound; and[,] optionally,
- one or more at least one electron-donor compound (external donor).

9. (currently amended) The catalyst according to claim 8 in which the alkylaluminum compound ~~(b)~~ is a trialkyl aluminum compound.

10. (currently amended) Process for the (co)polymerization of A process comprising (co)polymerizing olefins, the (co)polymerization being carried out in the presence of any of the catalysts of claims 8-9a catalyst comprising the product of the reaction between:

- a solid catalyst component comprising Mg, Ti, halogen and an electron donor selected from thiophene derivatives of formula (I):



wherein R is a branched alkyl group, R₁, R₂ and R₃, same or different, are hydrogen, halogen, R⁴, OR⁴, COOR⁴, SR⁴, NR⁴₂ or PR⁴₂, wherein R⁴ is a linear or branched C₁-C₂₀ alkyl, C₂-C₂₀ alkenyl, C₃-C₂₀ cycloalkyl, C₆-C₂₀ aryl, C₇-C₂₀ alkylaryl or C₇-C₂₀ arylalkyl group, optionally containing at least one heteroatom, and at least two of said R₁-R₃ groups can also be joined to form a cycle, with the proviso that at least one of R₁ and R₂ is COOR⁴ and that when R₂ is COO-i-octyl and R is i-octyl, at least one of R₁ and R₃ are different from hydrogen;

- an alkylaluminum compound; and optionally,

- at least one electron-donor compound (external donor).